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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/215,194 | 12/18/1998 | HIDEYUKI IKEGAMI | 862.2632 | 7690 |

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

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| EXAMINER |
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NGUYEN, TANH Q

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| ART UNIT | PAPER NUMBER |
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2182

DATE MAILED: 02/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/215,194

Applicant(s)

IKEGAMI ET AL.

Examiner

Tanh Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2003 and 05 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15,16,18-23 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15,16,18-23 and 25-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/08/03 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 15-16, 18-21; 22-23, 25-28; 29-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nagata et al. (U. S. Pat. No. 5,787,288)** in view of **Shaw (U. S. Pat. No. 6,341,373)**; and alternatively under 35 U.S.C. 103(a) as being unpatentable over **Shaw** in view of **Nagata et al.**.

5. As per claim 15, **Nagata et al.** (Nagata) teaches an image forming apparatus [10, FIG. 8] for forming an image in accordance with control codes, the image forming apparatus comprising:

a printing unit [7, FIG. 8] **for printing an image** (col. 4, line 67-col. 5, line 1);

a first memory medium [3, FIG. 8] for storing control codes (col. 4, lines 56-58) to control the image forming apparatus **having the printing unit**;

a display means [6, FIG. 8] for displaying messages associated with image forming operations (col. 4, lines 66-67);

a second memory medium [4, FIG. 8] for storing data received from an external apparatus (col. 4, lines 58-62; col. 9, lines 13-16);

a receiving means [2, FIG. 8] for receiving from the external apparatus [9, FIG. 8] the rewrite execution codes and new control codes (col. 2, line 63-col. 3, line 3; col. 4, lines 54-56; col. 8, lines 41-48), the rewrite execution codes being adapted to execute **rewriting** of the control codes stored in the first memory medium;

a rewrite means (col. 5, lines 8-11) for rewriting control codes which have been stored in the first memory medium, with the new control codes stored in the second memory medium in accordance with the rewrite execution codes stored in the second memory medium (col. 6, lines 17-24; col. 6, lines 40-41; col. 6, lines 51-54; col. 7, lines 44-46; col. 8, lines 57-59);

Nagata does not specifically teach the display means displaying a message informing the fact that the image forming apparatus is under download of data into the second memory medium.

Nagata, however, teaches an electromagnetic lock mechanism [52, FIG. 8] locking a power switch [51, FIG. 8] to maintain the image forming apparatus in a power on state (col. 5, lines 12-25) while control codes are being renewed (col. 8, line 55-col. 9, line 9), and as early as when a request is issued for renewal of control codes (col. 9, lines 9-12) to allow the renewal process to be completed safely (col. 3, lines 52-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made that Nagata teaches prevention of accidental powering off of the image forming apparatus during the renewal of control codes; and since the download of data occurs after a request is issued for renewal codes, also teaches download of data into the second memory medium being part of the renewal of control codes process.

Nagata further teaches other means for ensuring that the image forming apparatus remains powered on during renewal of control codes, including the display means being used instead of the lock mechanism to alert the fact that the control codes are being renewed (col. 5, lines 25-33). It would have been obvious to one of ordinary

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skill in the art at the time the invention was made that the use of the display means to alert the fact that the control codes are being renewed would help prevent a user from accidentally powering off the image forming apparatus during the renewal process by making the current use of the information apparatus visible and recognizable to the user. Nagata, therefore, teaches the display means displaying a message informing the fact that the image forming apparatus is under **either** download of data into the second memory medium **or rewrite of the control codes**.

Nagata, therefore, teaches the claimed invention except for teach a third memory medium for storing transfer control codes which are adapted to control transfer of rewrite execution codes from the external apparatus, with the receive means receiving the rewrite execution codes from the external apparatus in accordance with the transfer control codes and new control codes.

Shaw teaches a client device [10, FIG. 1] comprising:

a first memory medium [16, FIG. 1] for storing control codes [26, FIG. 1];

a second memory medium (RAM: col. 2, lines 49-51) for storing the data received by the receive means (col. 2, line 67-col. 3, line 4);

a third memory medium [14, FIG. 1] for storing transfer control codes [24, FIG. 1] which are adapted to control transfer of rewrite execution codes from the external apparatus (col. 4, lines 12-20), wherein the rewrite execution codes are adapted to execute rewrite of control codes stored in the first memory medium (col. 4, line 9-col. 5, line 15);

a receiving means [40, FIG. 1] for receiving from an external apparatus [60, FIG. 1] the rewrite execution codes in accordance with the transfer control codes (col. 4, lines 21-51) and the receiving means also receiving new control codes from the external apparatus (col. 4, line 45-col.5, line 15), with both the rewrite execution codes and the control codes being stored in the second memory medium (col. 2, line 62-col. 3, line 7);

a rewrite means for rewriting the control codes which has been stored in the first memory medium with the new control codes in the second memory medium in accordance with the rewrite execution codes stored in the second memory medium (col. 4, line 46-col. 5, line 15).

Shaw's teachings allow for a more secure download, recovery and upgrade of control codes in a first memory medium (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Shaw's transfer control codes stored in the third memory medium, and adapted to control transfer of rewrite execution codes into Nagata's image forming apparatus because both Shaw's and Nagata's teachings are directed to renewing control codes in a first memory medium with control codes received from an external apparatus using rewrite execution codes also received from the external apparatus, and because Shaw's aforementioned teachings would allow for a more secure download, recovery and upgrade of the control codes in a first memory medium.

6. As per claim 15, the following alternate rejection also applies. With reference to paragraph 5 above, Shaw does not specifically teach an image forming apparatus

having a display means for displaying messages associated with an image forming operation, with the display means displaying a message informing the fact that the image forming apparatus is under download of data into the second memory medium, nor a printing unit for printing an image.

Shaw teaches a client device, hence encompasses an image forming apparatus having a display means for displaying messages associated with an image forming apparatus and **a printing unit for printing an image**. Shaw further teaches a boot code [32, FIG. 1] that is responsible for the selection and execution of either the transfer control codes in the third memory medium, or the control codes in the first memory medium (col. 2, lines 59-61). It is noted that Shaw's teachings would be well suited for a client device requiring downloaded control codes from a server, whether the client device is an image forming apparatus (with or without a printing unit for printing an image), a computer or any device that can communicate with the server using its own processor.

Shaw, therefore, teaches the claimed invention except for displaying a message informing the fact that the image forming apparatus is under download of data into the second memory medium.

Nagata teaches, in paragraph 5 above, the display means displaying a message informing the fact that the image forming apparatus is under download of data into the second memory medium to allow the renewal process to complete safely and to prevent a user from accidentally powering off the image forming apparatus during the renewal process by making the current use of the information apparatus visible and recognizable to the user.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Nagata's display means displaying a message informing the fact that the image forming apparatus is under download of data into the second memory medium into Shaw's client device because both Shaw's and Nagata's teachings are directed to renewing control codes in a first memory medium with control codes received from an external apparatus using rewrite execution codes also received from the external apparatus, and because Nagata's aforementioned teachings would allow the renewal process to complete safely and would prevent a user from accidentally powering off the image forming apparatus during the renewal process by making the current use of the information apparatus visible and recognizable to the user.

7. As per claims 16, 18-21,

Nagata teaches the rewrite execution codes being transferred to a non-volatile memory medium [3, FIG. 8] as the first memory medium and stored therein (col. 9, lines 14-16); an image forming control means for controlling an image forming process, and a switching means for exclusively changing over between the image forming process and the rewriting of the control codes (col. 5, lines 5-11; col. 6, lines 17-24); and the switching means exclusively changing over in accordance with a predetermined command [NSS signal] transmitted from the external apparatus (col. 6, lines 51-54).

Shaw teaches the rewrite execution codes being transferred to a non-volatile memory medium [16, FIG. 1] as the first memory medium and stored therein (col. 5,

lines 13-15); the rewrite execution codes including address information of the first memory medium for executing rewriting the control codes in accordance with the address information (col. 4, line 41-col. 5, line 15; col. 5, lines 32-35); a switching means [20, FIG. 1] for exclusively changing over between an operational process and the rewriting of the control codes (col. 2, lines 59-61; col. 3, lines 23-30); the switching means exclusively changing over in accordance with a predetermined switch [20, FIG. 1; col. 3, lines 23-30]; and the switching means exclusively changing over in accordance with a predetermined command transmitted from the external apparatus (col. 3, line 42-col. 4, line 7).

8. As per claims 22-23, 25-28 and 35, Nagata in combination with Shaw teaches an image forming apparatus and rewriting of control codes in such an apparatus (see rejections to claims 15-16 and 18-21 in paragraphs 5-7 above), therefore teaches the rewrite control method for such an apparatus.

9. As per claims 29-34, Shaw further teaches a processor [12, FIG. 1] within client device [10, FIG. 1] for controlling the image forming apparatus in accordance with the control codes stored in the code memory (col. 4, lines 1-4), wherein the client device (hence the processor of the client device) controls the transfer of the rewrite execution codes from the external apparatus in accordance with the transfer control codes stored in the memory (col. 4, lines 8-44), the transfer of control codes from the external

apparatus (col. 4, lines 45-col. 5, line15), and the rewriting of the control codes (col. 4, lines 45-col. 5, line15).

Shaw also teaches the code memory being a rewritable memory [16, FIG. 1; col. 2, lines 43-51]; the memory being a ROM [14, FIG. 1; col. 2, lines 43-51]; and the control codes and the rewrite execution codes being programs executed by the client device (hence executed by the processor of the client device).

Nagata teaches the image forming apparatus having a printing unit having a similar construction to a copying machine (col. 5, lines 33-39), hence the image forming apparatus being a copying machine or a printer.

10. Claims 15-16, 18-21; 22-23, 25-28; 29-35 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over **Nagata et al.** in view of **Shaw** and further in view of **Knodt et al. (U.S. Pat. No. 5,987,535)**; and alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over **Shaw** in view of **Nagata et al.** and further in view of **Knodt et al.**. The text of those sections of Title 35, U.S. Code not included in this action can be found in the preceding prior Office Action.

11. Claims 18-20; 25-27 and 32-33 are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over **Nagata et al.** in view of **Shaw** and further in view of **Whitley et al. (U.S. Pat. No. 5,590,373)**; over **Shaw** in view of **Nagata et al.** and further in view of **Whitley et al.**; over **Nagata et al.** in view of **Shaw**, further in view of **Knodt et al.**, and further in view of **Whitley et al.**; or over **Shaw** in view of **Nagata et al.**, further in

view of **Knodt et al.**, and further in view of **Whitley et al.**. The text of those sections of Title 35, U.S. Code not included in this action can be found in the preceding prior Office Action.

Response to Arguments

12. Applicant's arguments filed 01/08/03 have been fully considered but they are not persuasive.

With respect to Shaw and Nagata, applicant essentially argued that the combination of Shaw with Nagata is improper because the field of art in Shaw is non-analogous to that of the present invention: applicant argued that Nagata teaches a facsimile machine (with a printing unit for printing an image) but does not teach the transfer control codes being transferred from an external apparatus (for controlling the transfer of rewrite execution codes); and that because Shaw does not teach an image forming apparatus having a printing unit, the field of art in Shaw is non-analogous to that of the present invention. One of ordinary skill in the art of the present invention would not have any motivation to look to Shaw to combine its teachings with others to derive the present invention (pages 12-13 – Remarks).

In response to applicant's argument that Shaw is non-analogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was

concerned, in order to be relied upon as a basis for rejection of the claimed invention.

See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992).

In this case, applicant's invention concerns "an image forming apparatus having a printing unit **in which stored control codes** for controlling the image forming apparatus **can be rewritten**" (page 9 – Remarks). Accordingly, applicant's invention is concerned with **rewriting the control codes** and with an image forming apparatus. **Rewriting the control codes** is, therefore, in the field of applicant's endeavor, or at least is reasonably pertinent to the particular problem with which the applicant was concerned, i.e. **rewriting the control codes** in an image forming apparatus having a printing unit for printing an image. Nagata teaches an image forming apparatus having a printing unit in which **control codes can be rewritten**. Shaw teaches "the transfer control codes being transferred from an external apparatus" as being part of **rewriting the control codes**. One of ordinary skill in the art of the present invention would therefore be motivated to look to Shaw to combine "the transfer control codes being transferred from an external apparatus" with Nagata to derive the present invention.

It is further noted that Shaw and Nagata are both currently classified under the same class/subclass (717/173) for Software Upgrading or Updating/Network/Including distribution of software/including downloading (Appendix A). One of ordinary skill in the art of the present invention would therefore be motivated to look to Shaw to combine "the transfer control codes being transferred from an external apparatus" (as being part of **rewriting the control codes**) with Nagata's image forming apparatus having a printing unit in which **control codes can be rewritten** to derive the present invention.

It appears that applicant has sought to unfairly define the area of the art to image forming apparatus with a printing unit for the sole purpose of excluding Shaw from being considered.

It also appears that applicant is arguing against the references individually. Applicant cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant arguments with respect to Knodt and Whitley are moot because they were not relied upon to teach the transfer control codes for controlling the transfer of rewrite execution codes from an external apparatus.

13. Applicant should also consider the prior art made of record that is considered pertinent to applicant's disclosure in the prior Office Action.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Quang Nguyen whose telephone number is (703) 305-0138, and whose e-mail address is tanh.nguyen36@uspto.gov. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin, can be reached on (703) 308-3301. The fax phone number

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for the organization where this application or proceeding is assigned is (703) 746-7238 for After Final, (703) 746-7239 for Official, (703) 746-7240 for Customer Services, or (703) 746-5672 for Draft to the Examiner (please label "PROPOSED" or "DRAFT").

Any inquiry of a general nature relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Mail responses to this action should be sent to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

Faxes for formal communications intended for entry should be sent to:

(703) 308-9051,

Hand-delivered responses should be brought to:

Crystal Park II, 2121 Crystal Drive, Arlington, Va, Fourth Floor

(Receptionist).



JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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February 12, 2003

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Appendix A